

FIG. 1

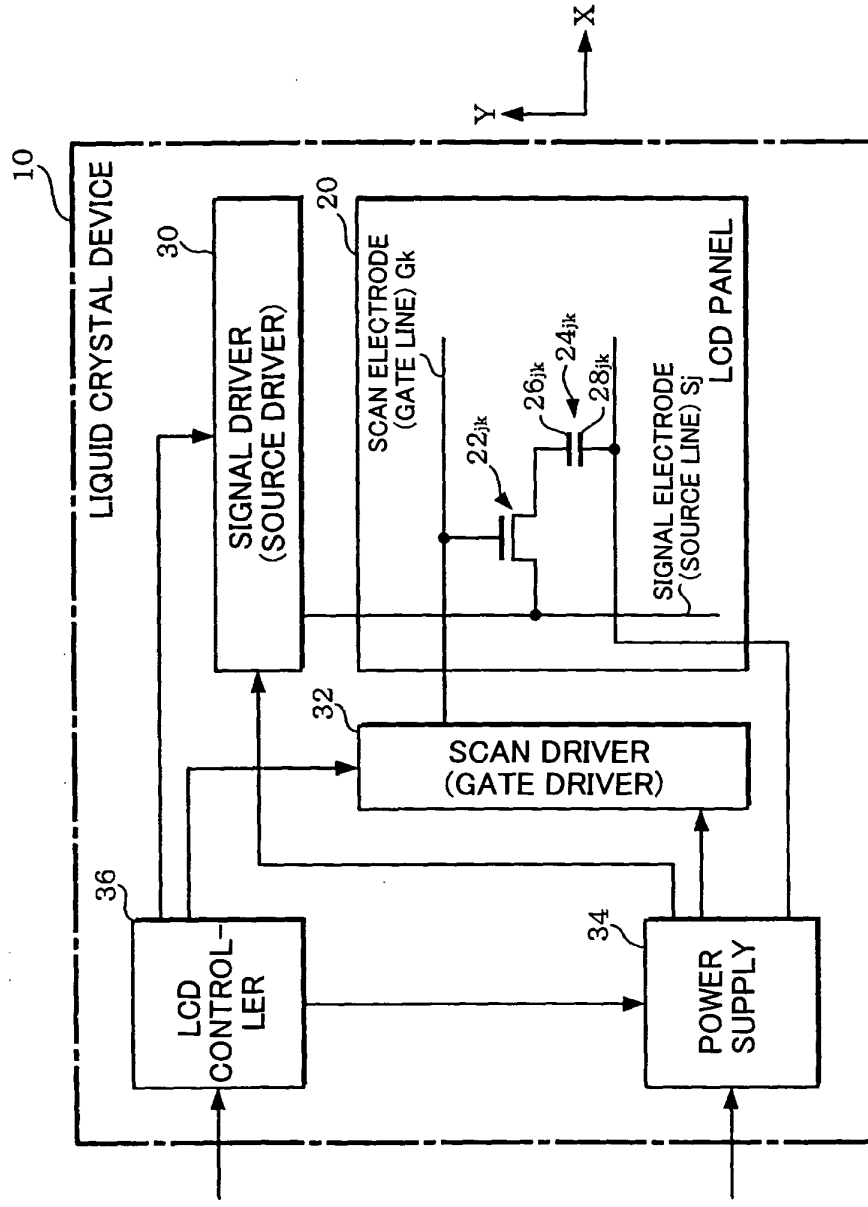


FIG. 2

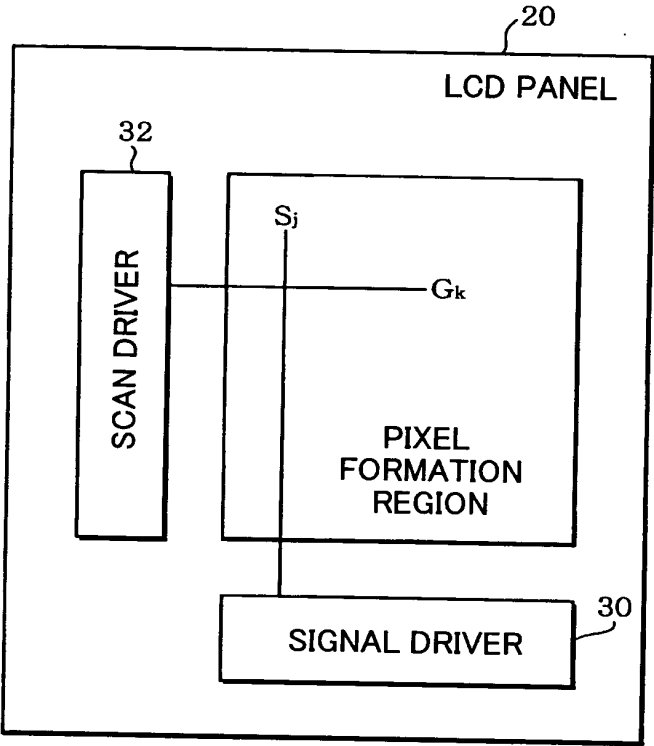


FIG. 3

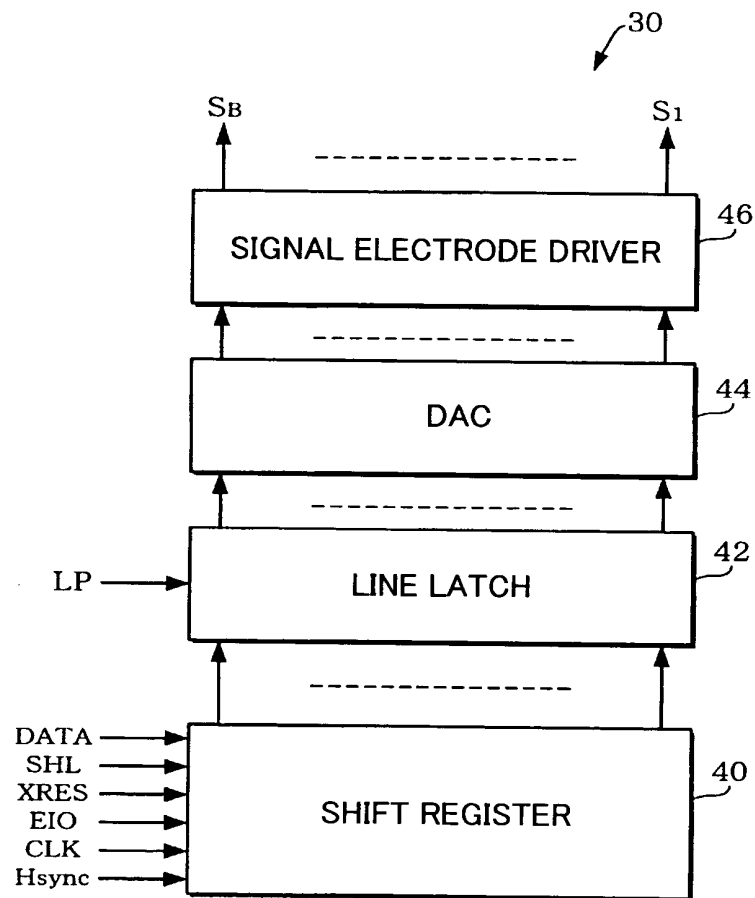


FIG. 4A

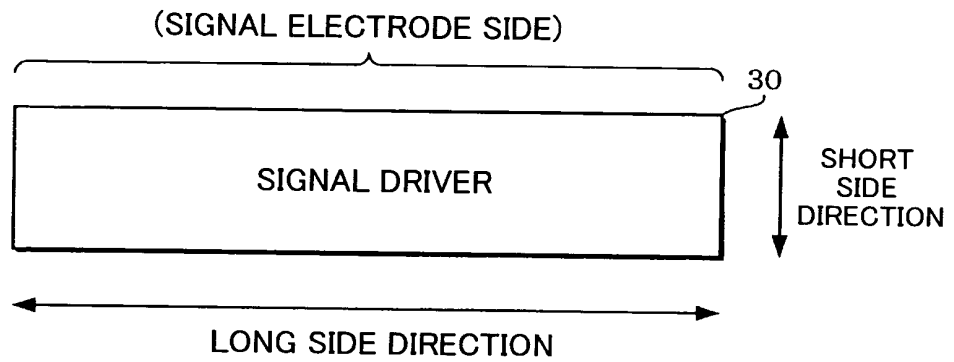
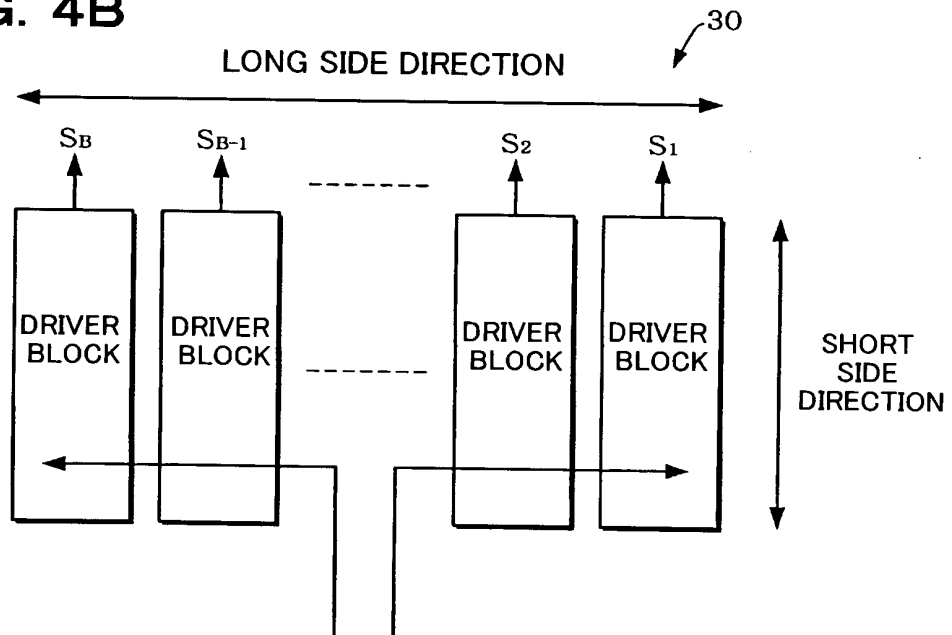


FIG. 4B



The diagram illustrates a signal electrode driver circuit (40) designed for driving a display. It consists of a series of shift register blocks (BLK1 to BLK8) connected to data masks (521 to 528) and a data input control block (50). The circuit is divided into two directions: RIGHT DIRECTION (FIRST DIRECTION) and LEFT DIRECTION (SECOND DIRECTION).

Right Direction (First Direction): This path starts from the right side, where DATA₁ is input to DATA MASK 521. The output of 521 is DATA₂, which is input to DATA MASK 522. This sequence continues through DATA MASK 523 to DATA₄, and DATA MASK 524 to DATA₅. The output of DATA MASK 525 is DATA₆, which is input to DATA MASK 526. The output of DATA MASK 527 is DATA₇, which is input to DATA MASK 528. The output of DATA MASK 528 is DATA₈, which is input to the DATA INPUT CONTROL block (50).

Left Direction (Second Direction): This path starts from the left side, where DATA₈ is input to BLK8 (BLK_{M+N}). The output of BLK8 is DATA₇, which is input to BLK7. The output of BLK7 is DATA₆, which is input to BLK6. The output of BLK6 is DATA₅, which is input to BLK5 (BLK_{M+1}). The output of BLK5 is DATA₄, which is input to BLK4 (BLK_M). The output of BLK4 is DATA₃, which is input to BLK3. The output of BLK3 is DATA₂, which is input to BLK2. The output of BLK2 is DATA₁, which is input to BLK1 (BLK_M). The output of BLK1 is DATA₀, which is input to the DATA INPUT CONTROL block (50).

Data Input Control Block (50): This block receives DATA₈ and DATA₀ and outputs a signal to the DATA INPUT CONTROL block (50).

Shift Register Blocks (BLK1 to BLK8): These blocks are connected to a common CLK line. Each block has an input (EIO₁ to EIO₈) and an output (DO₁ to DO₈). The outputs of the shift register blocks are connected to the data masks (521 to 528).

Labels: The labels include "TO SIGNAL ELECTRODE DRIVER CIRCUIT", "RIGHT DIRECTION (FIRST DIRECTION)", "LEFT DIRECTION (SECOND DIRECTION)", "DATA INPUT CONTROL", "DATA MASK", "BLK1 SHIFT REGISTER BLOCK", "BLK2", "BLK3", "BLK4 (BLK_M)", "BLK5 (BLK_{M+1})", "BLK6", "BLK7", "BLK8 (BLK_{M+N})", "EIO₁", "EIO₂", "EIO₃", "EIO₄", "EIO₅", "EIO₆", "EIO₇", "EIO₈", "DO₁~DO₃₁", "DO₂~DO₃₂", "DO₃~DO₃₃", "DO₄~DO₃₄", "DO₅~DO₃₅", "DO₆~DO₃₆", "DO₇~DO₃₇", "DO₈~DO₃₈", "DATA₁", "DATA₂", "DATA₃", "DATA₄", "DATA₅", "DATA₆", "DATA₇", "DATA₈", "CLK", "521", "522", "523", "524", "525", "526", "527", "528", "50", "40", "GRAY-SCALE DATA", "DATA", "EIO (DATA ENABLE SIGNAL)".

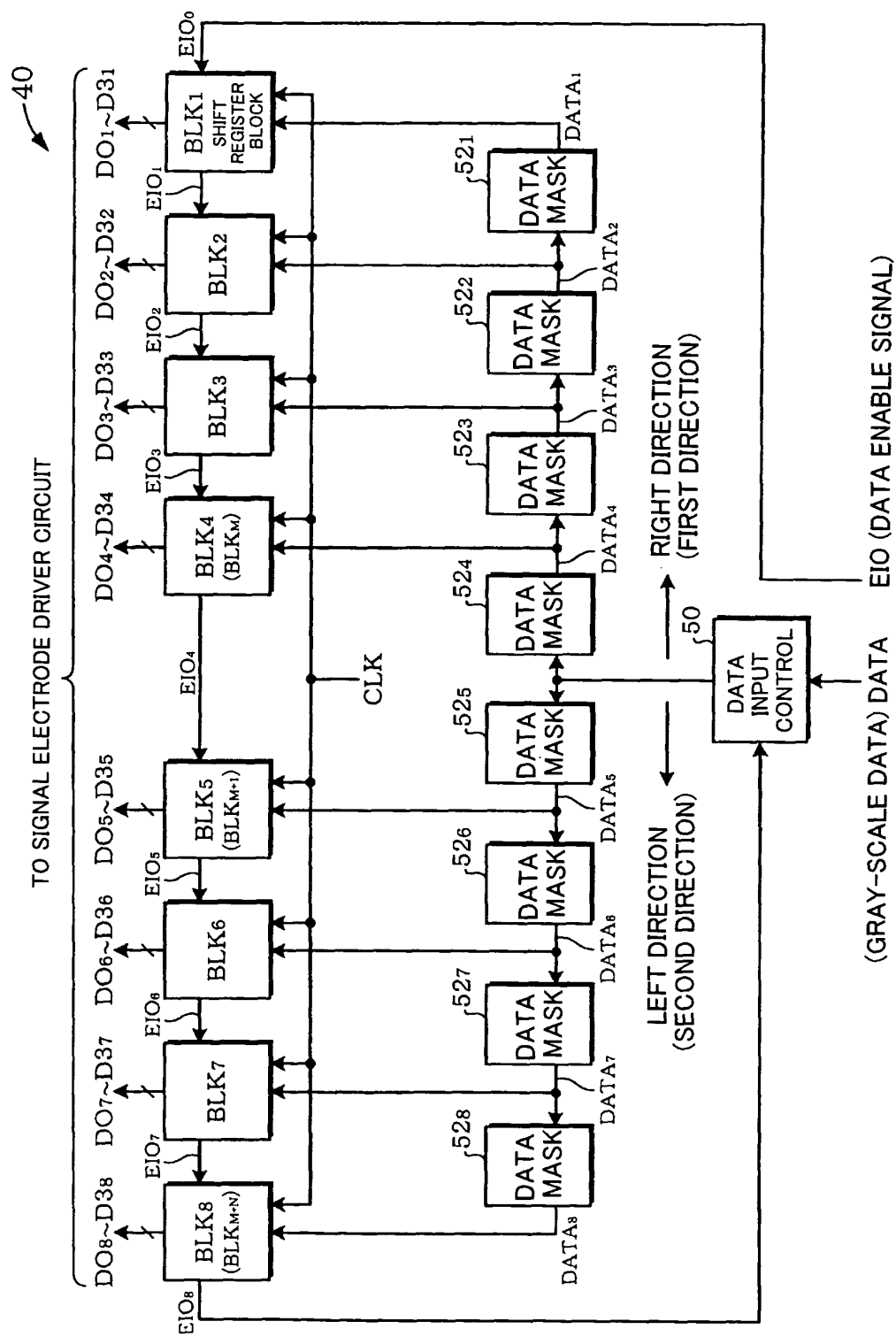


FIG. 6

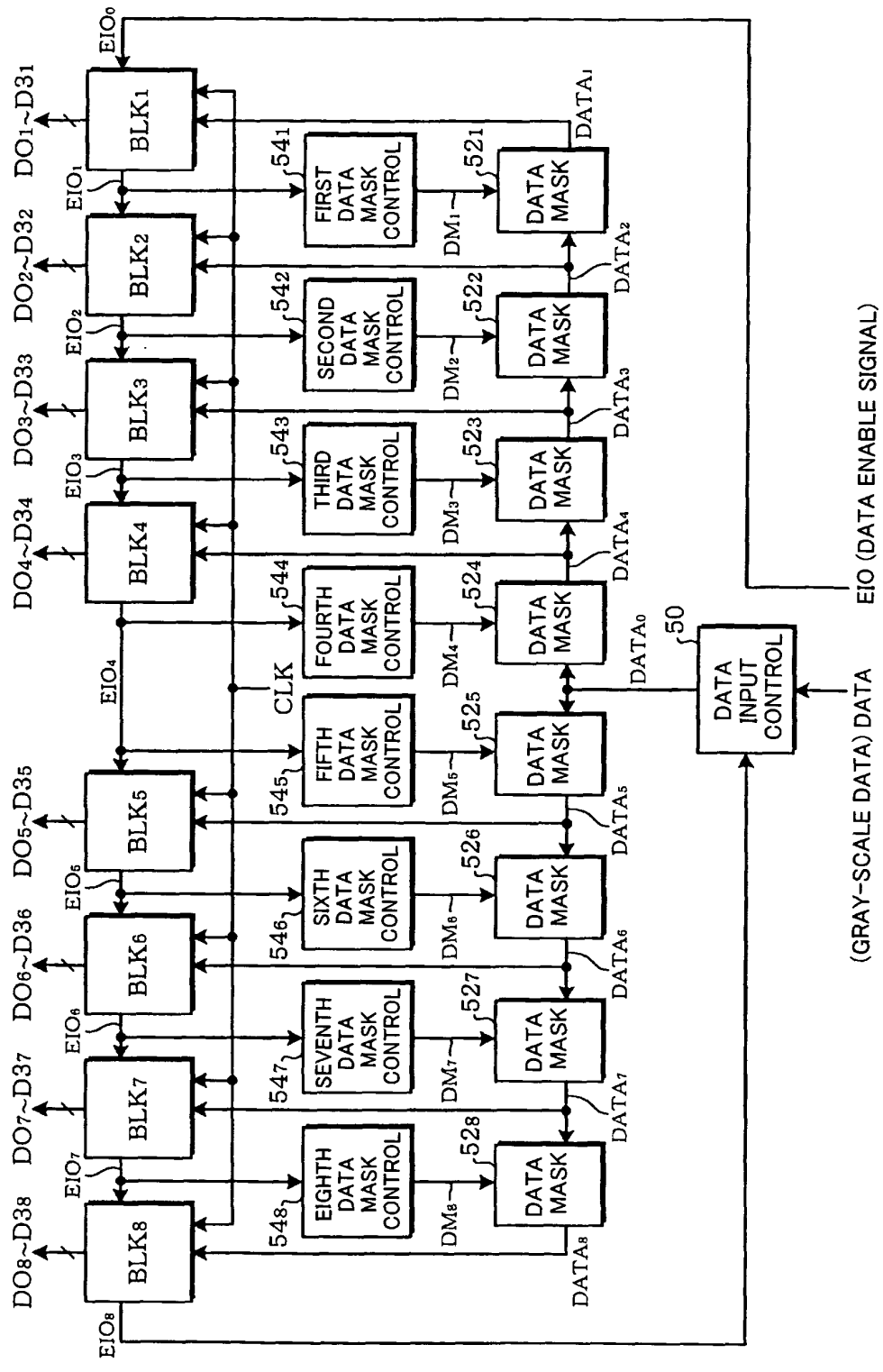


FIG. 7

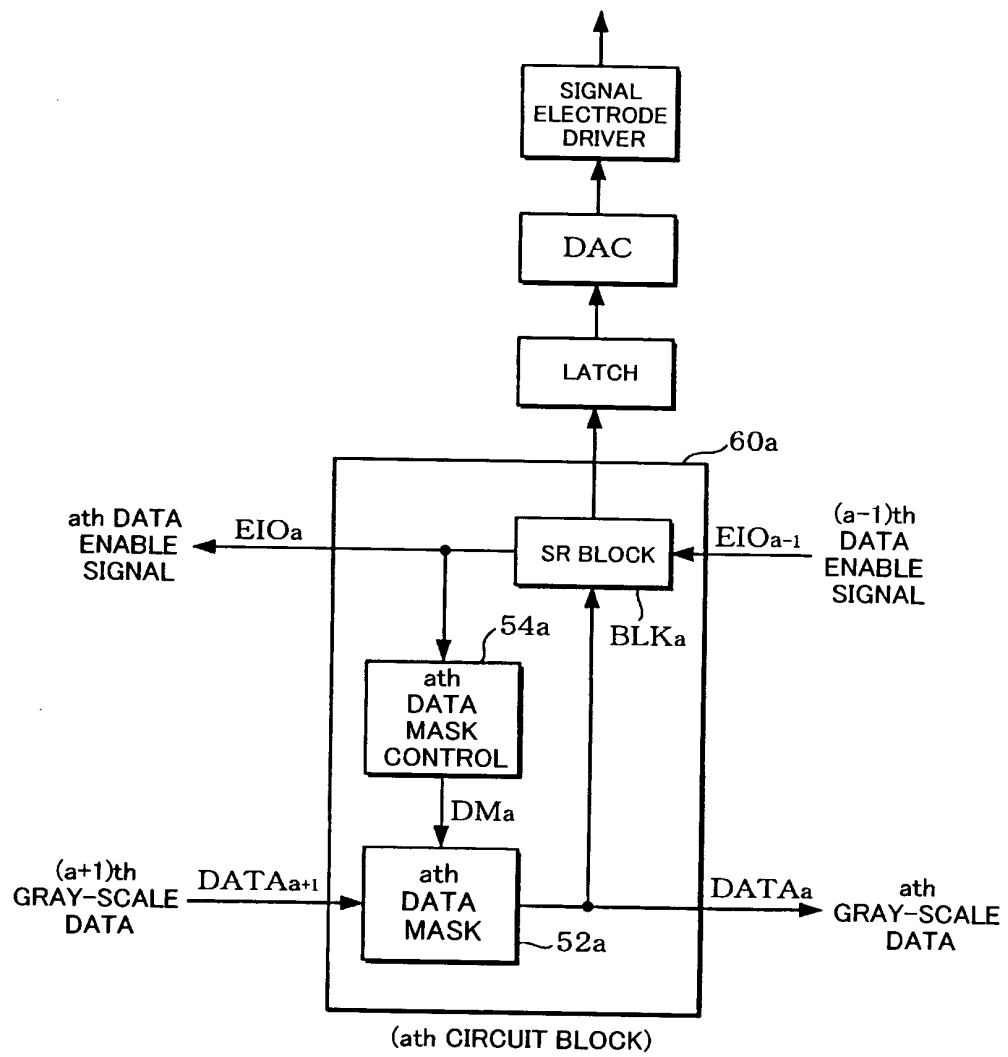


FIG. 8

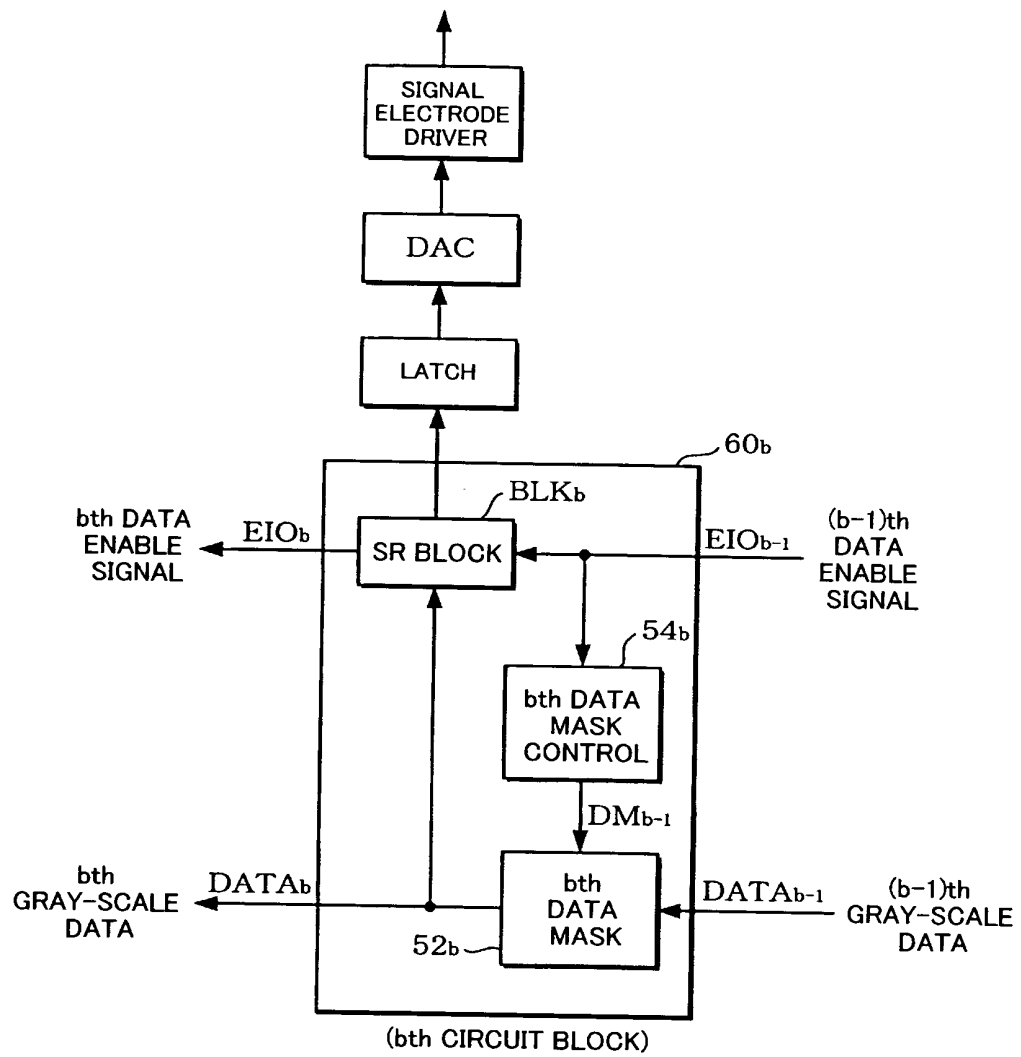


FIG. 9

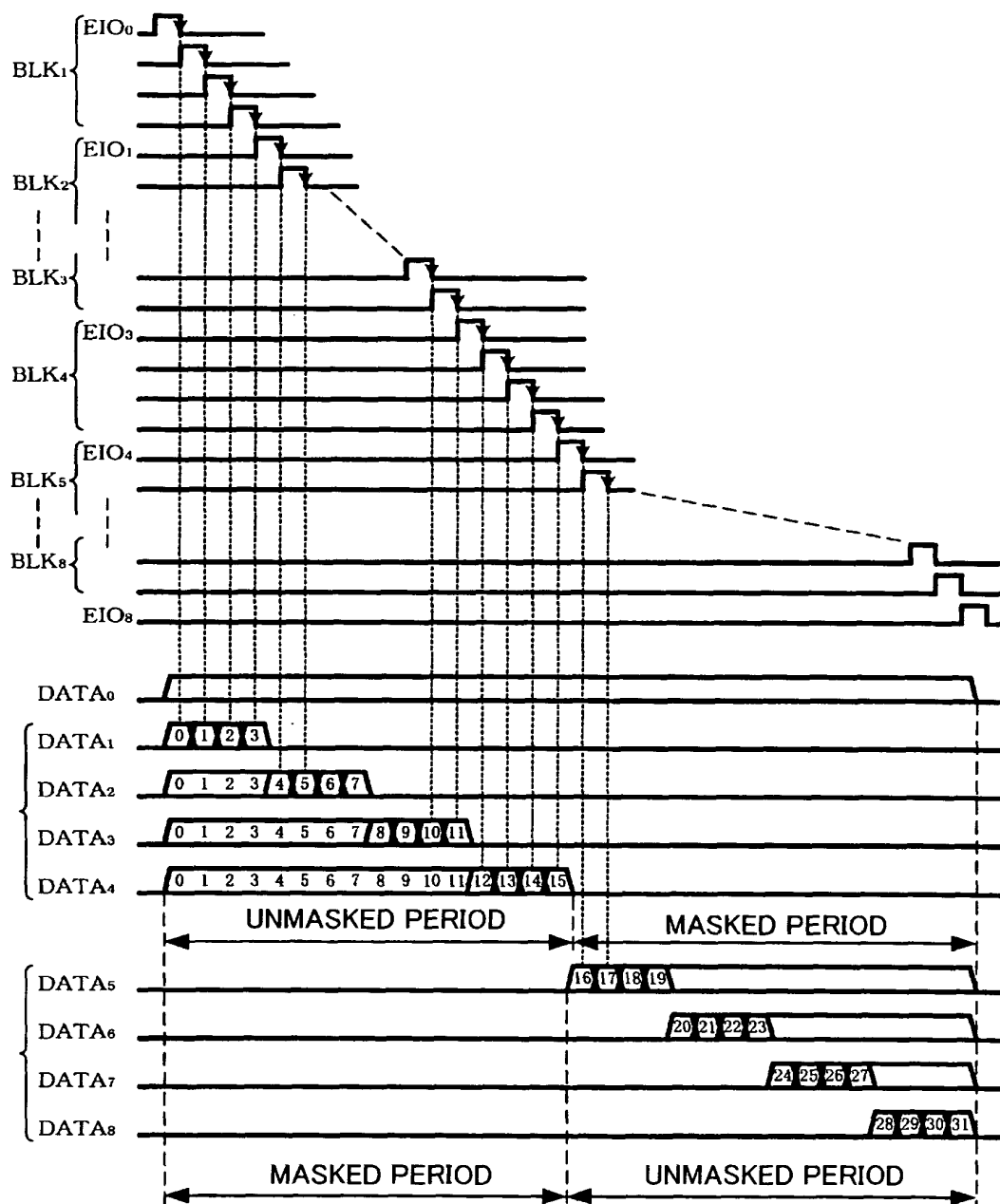


FIG. 10A

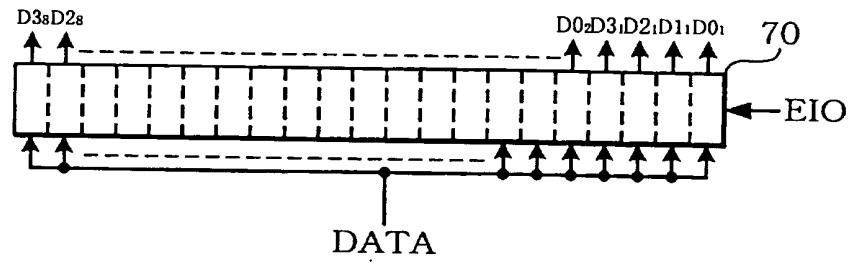


FIG. 10B

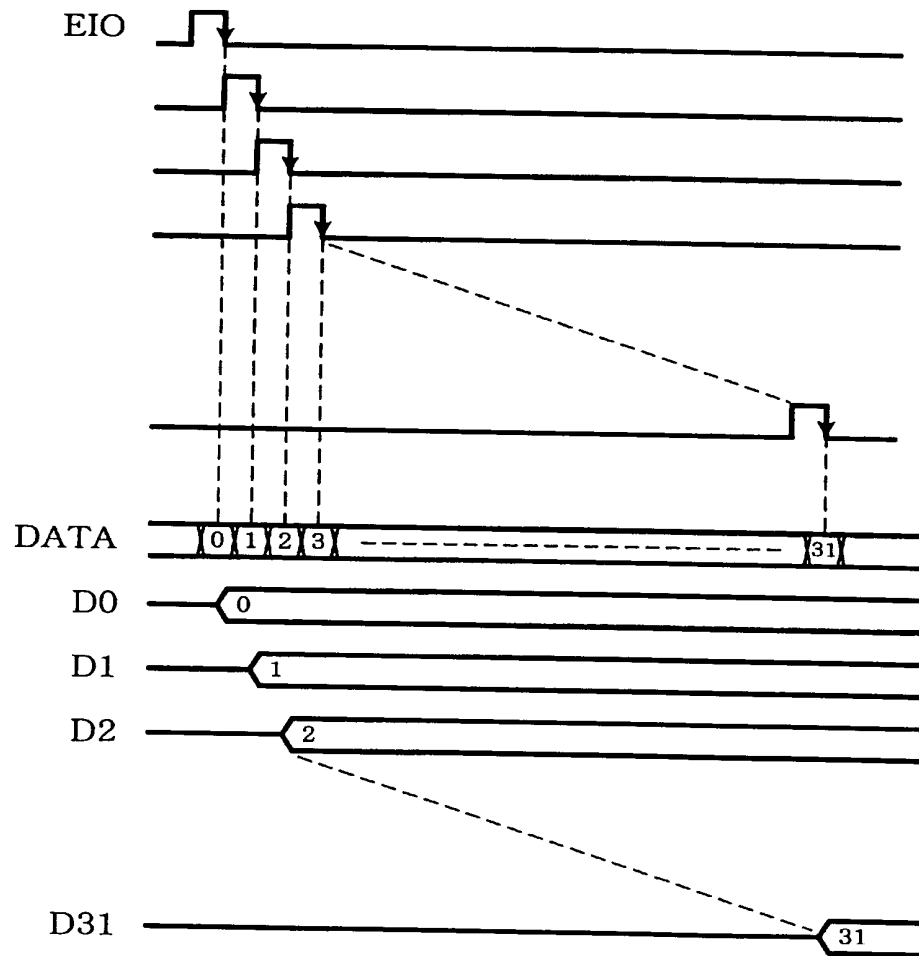


FIG. 11

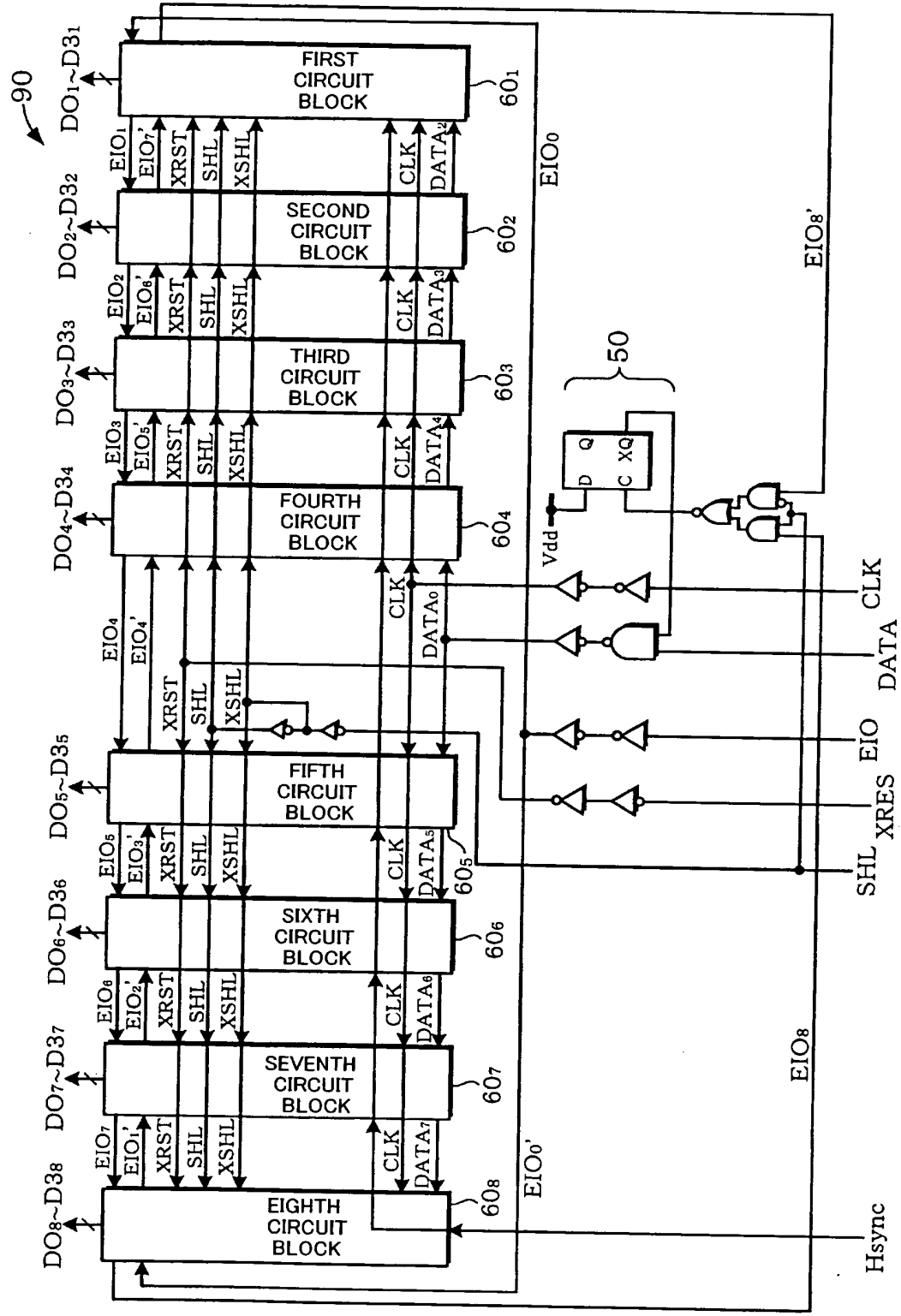


FIG. 12

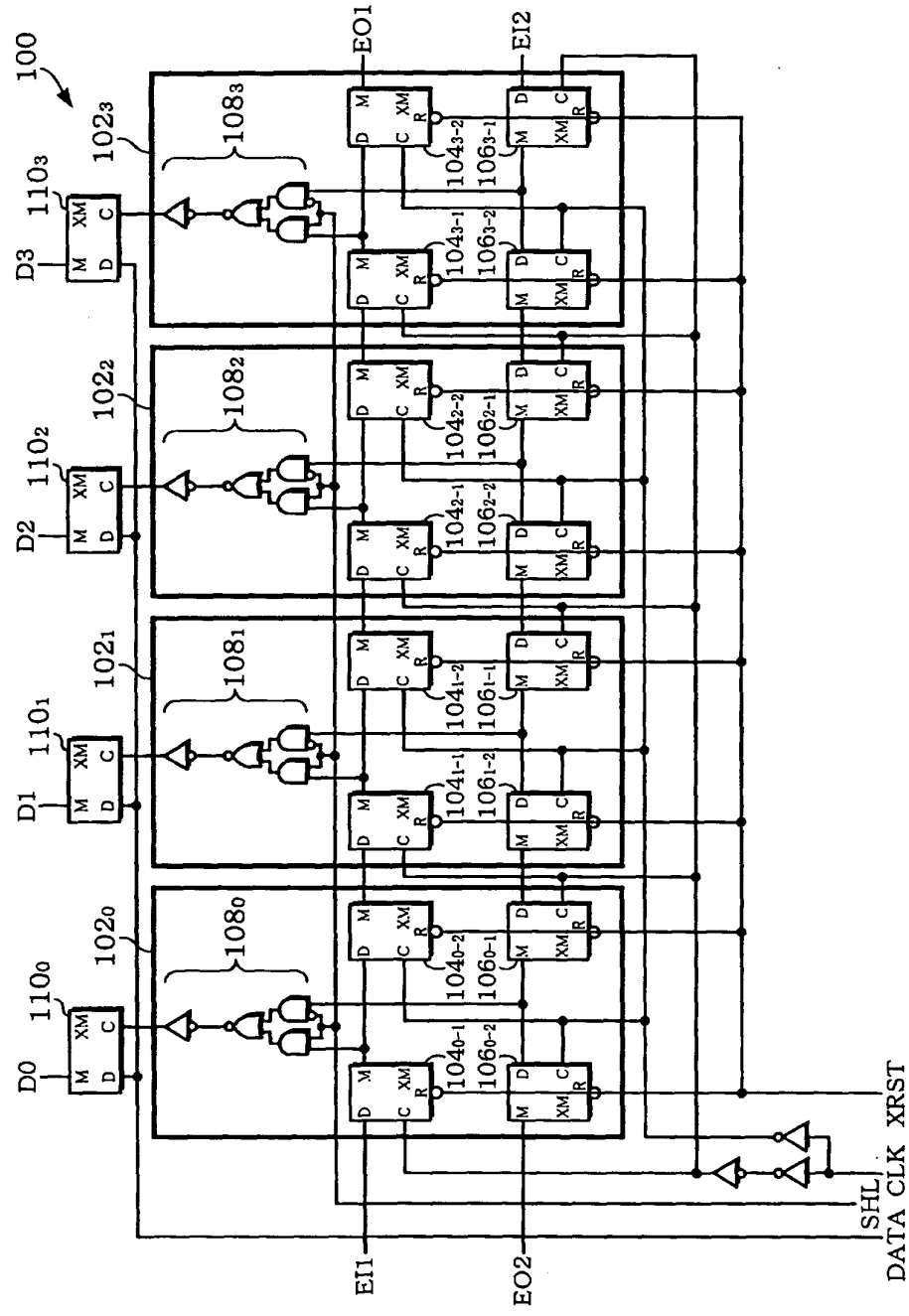


FIG. 13

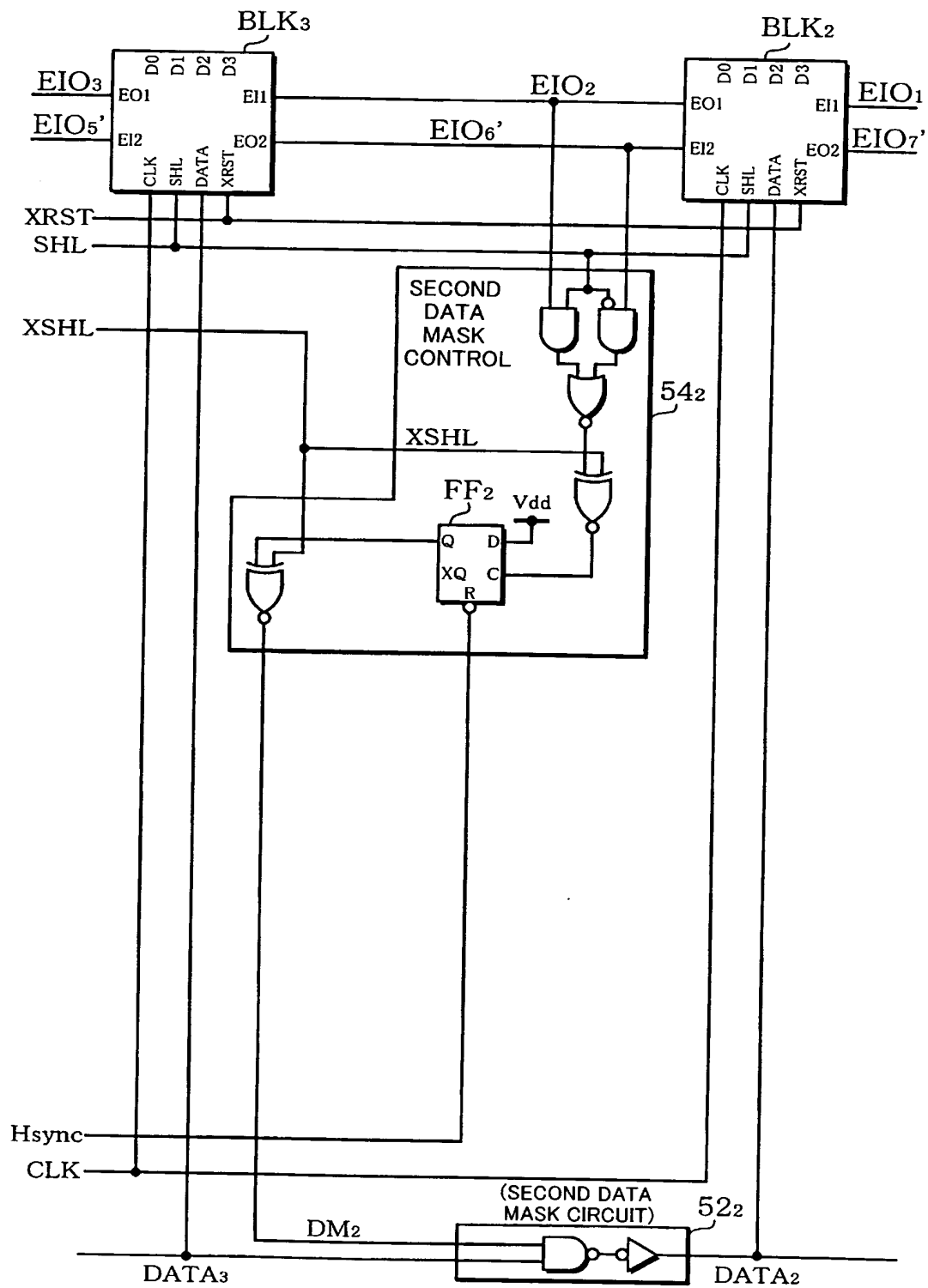


FIG. 14

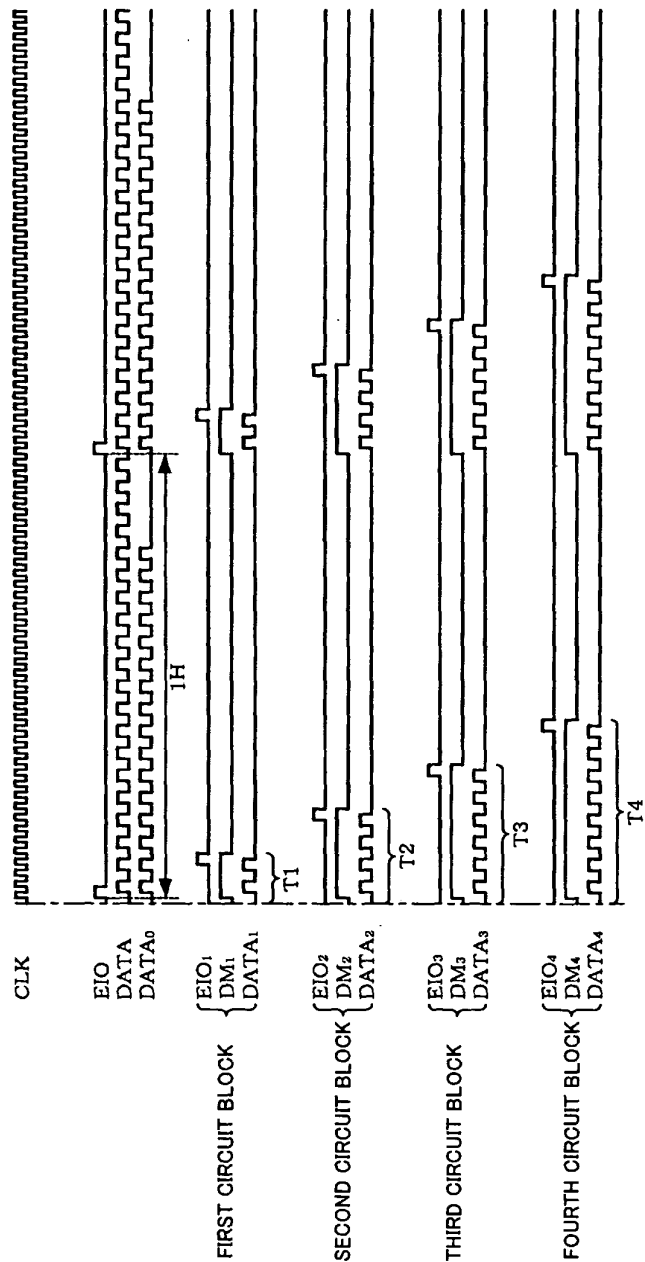


FIG. 15



FIG. 16

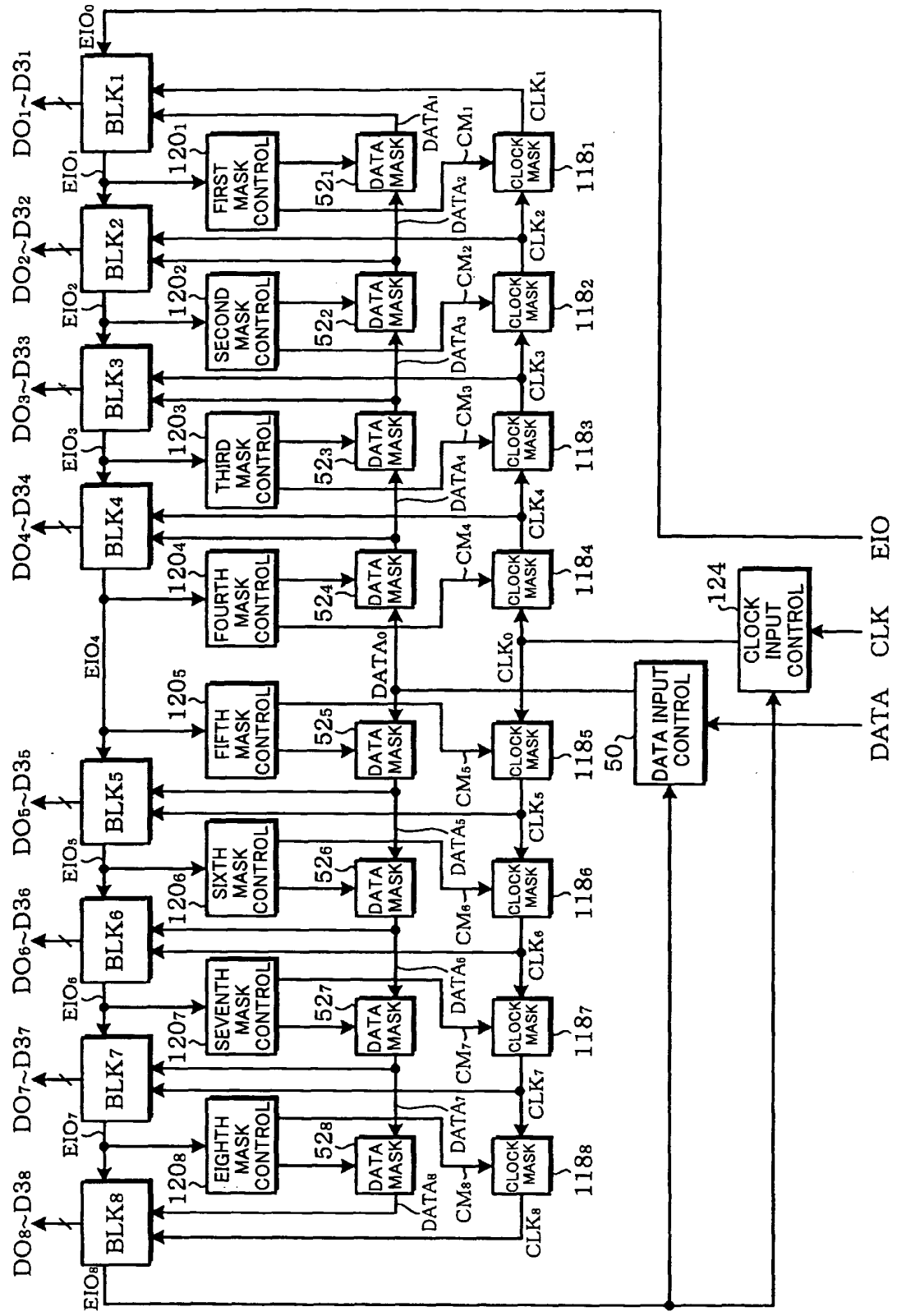


FIG. 17

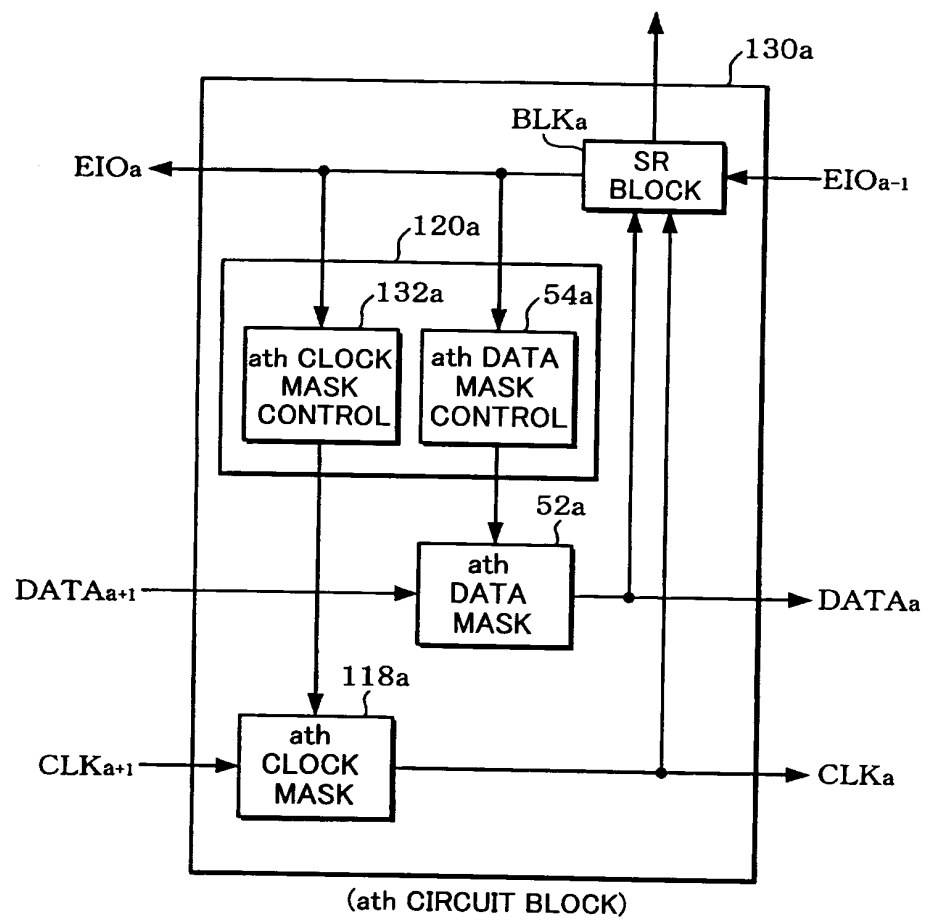


FIG. 18

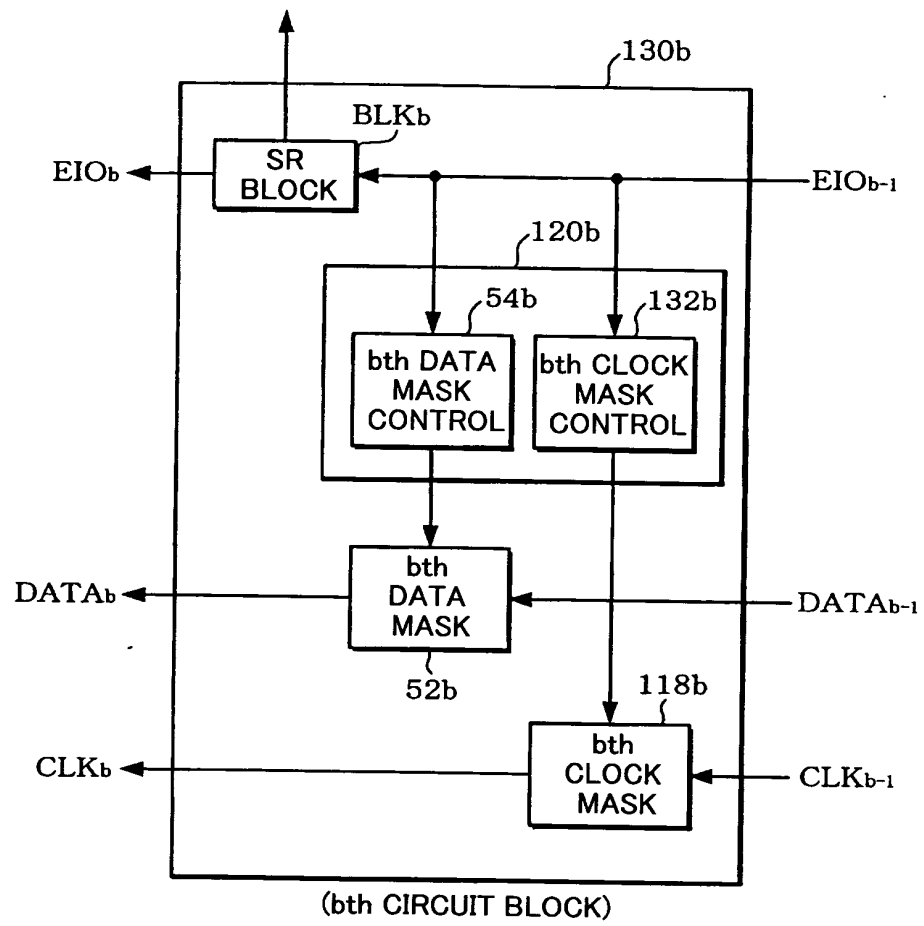


FIG. 19

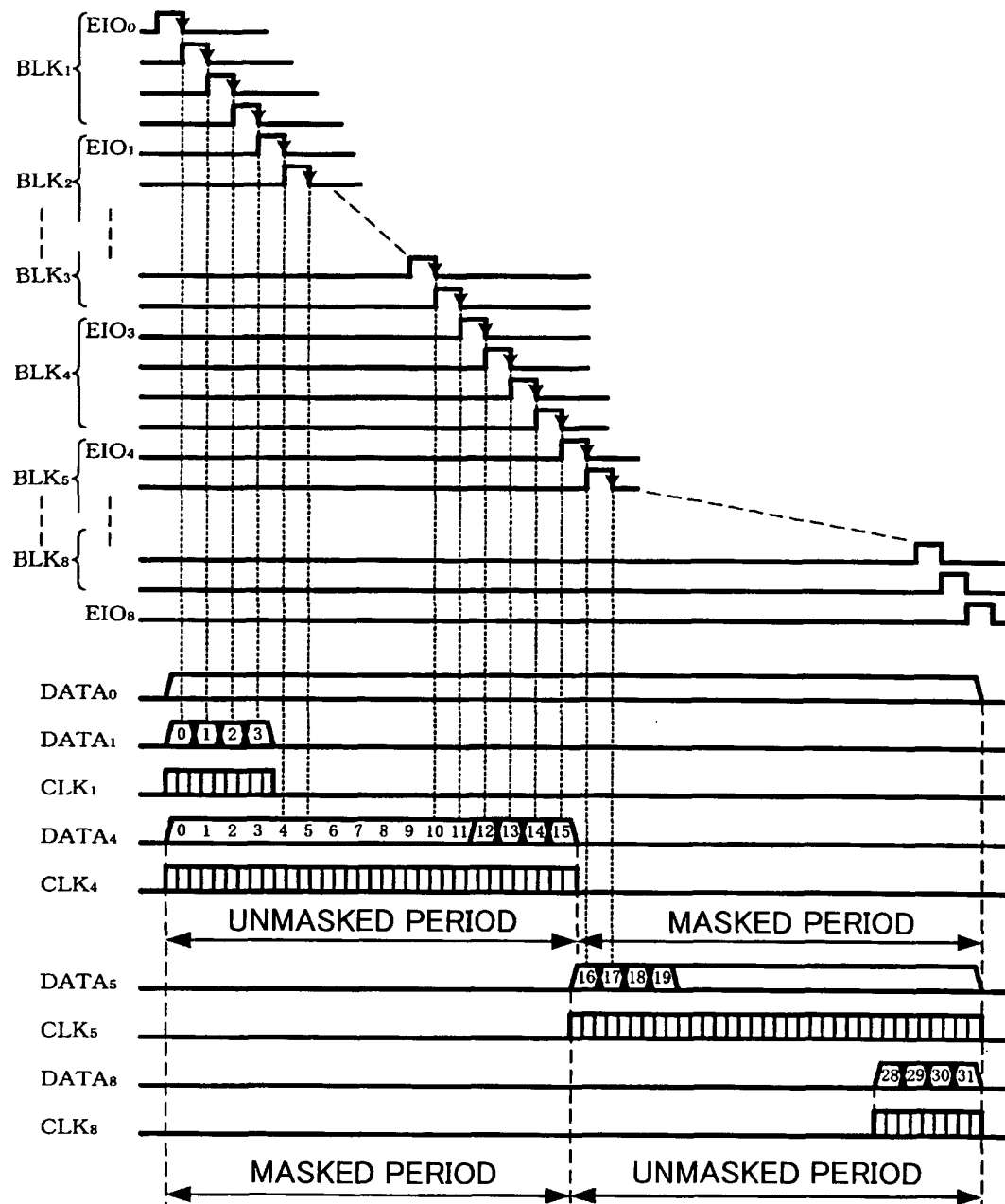


FIG. 20

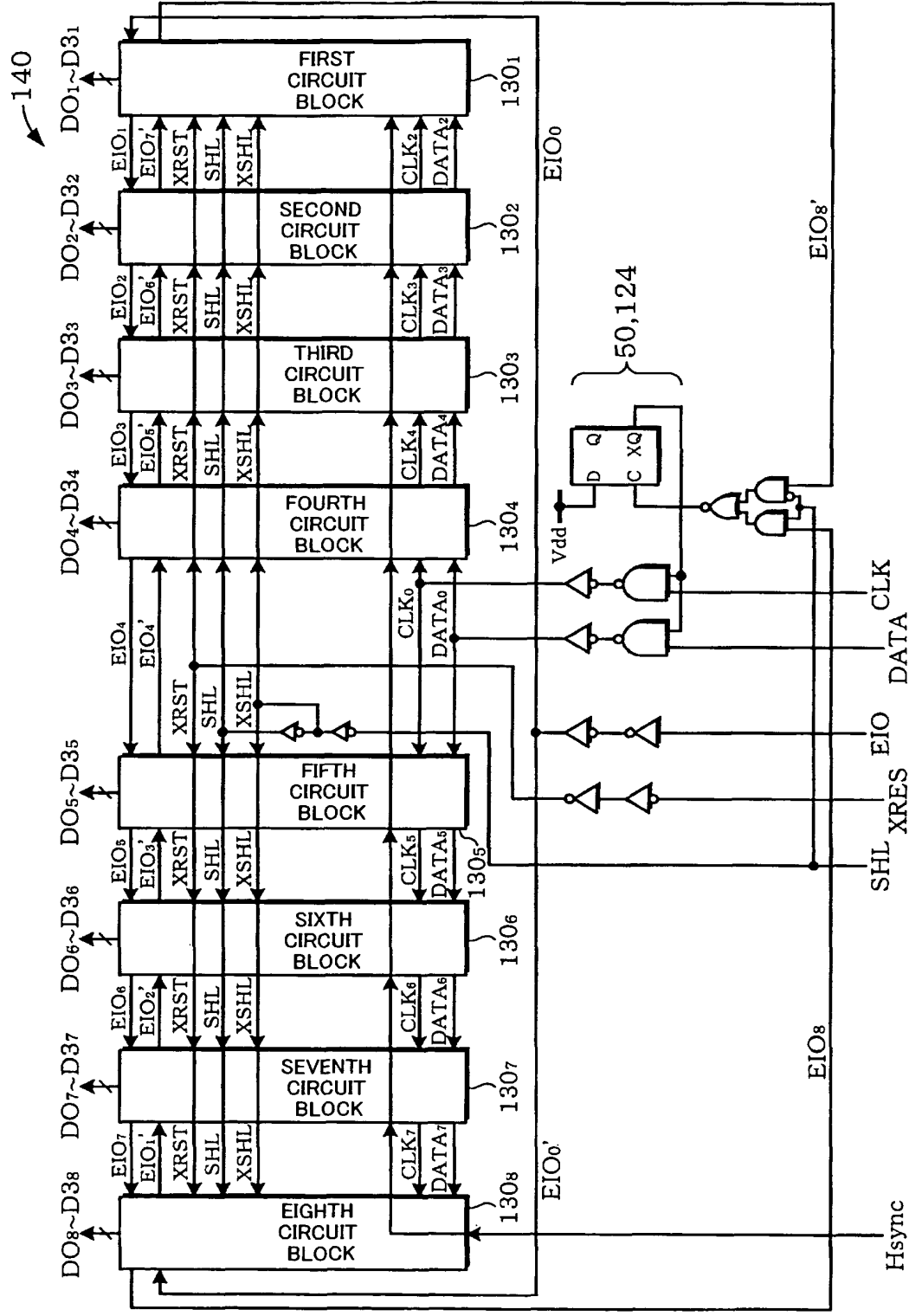


FIG. 21

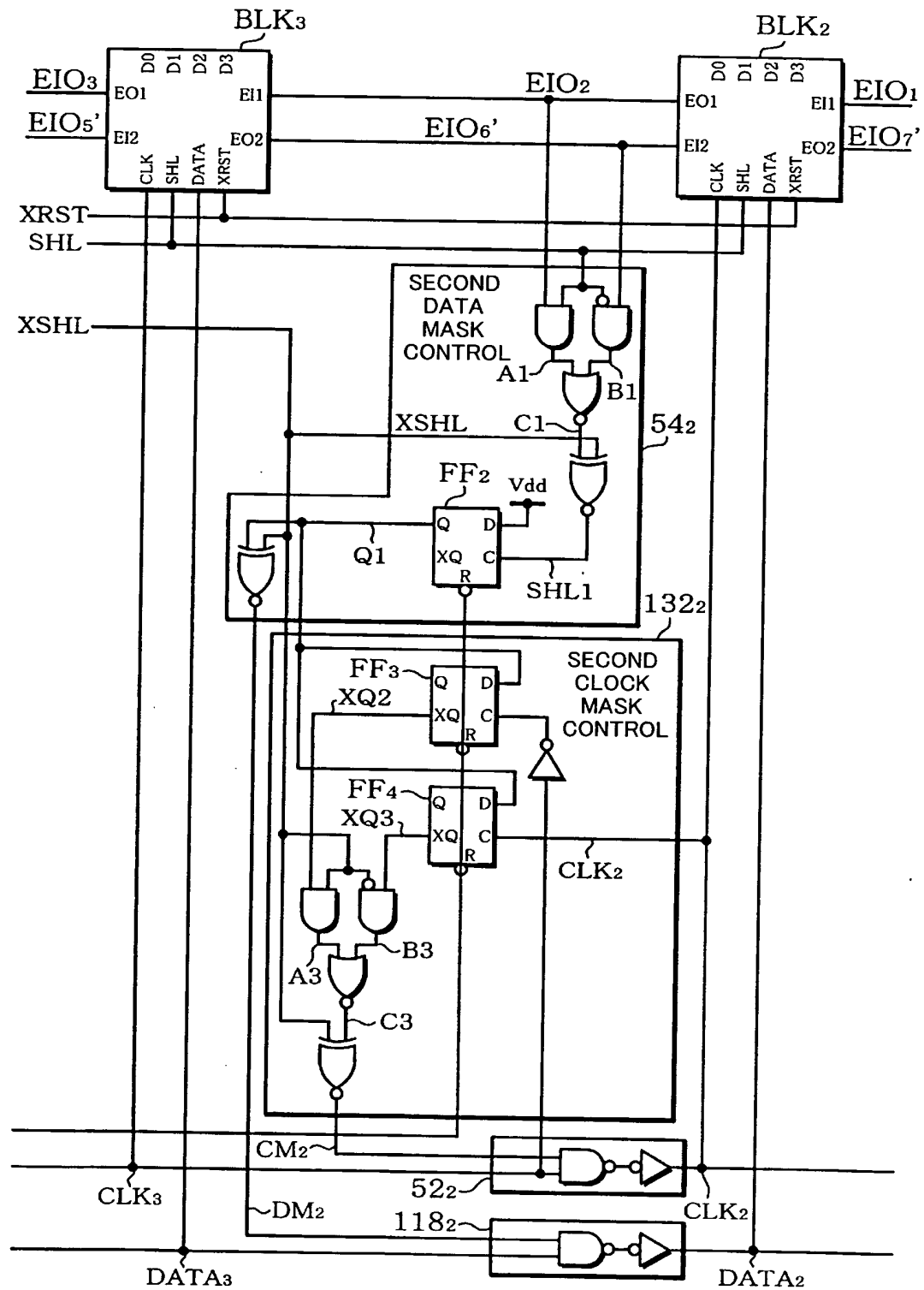


FIG. 22

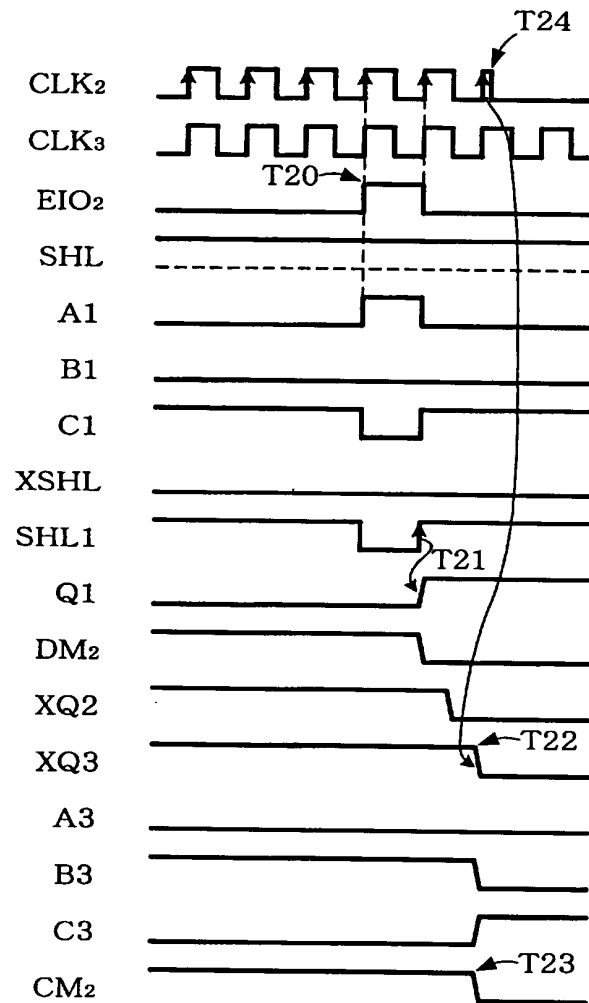


FIG. 23

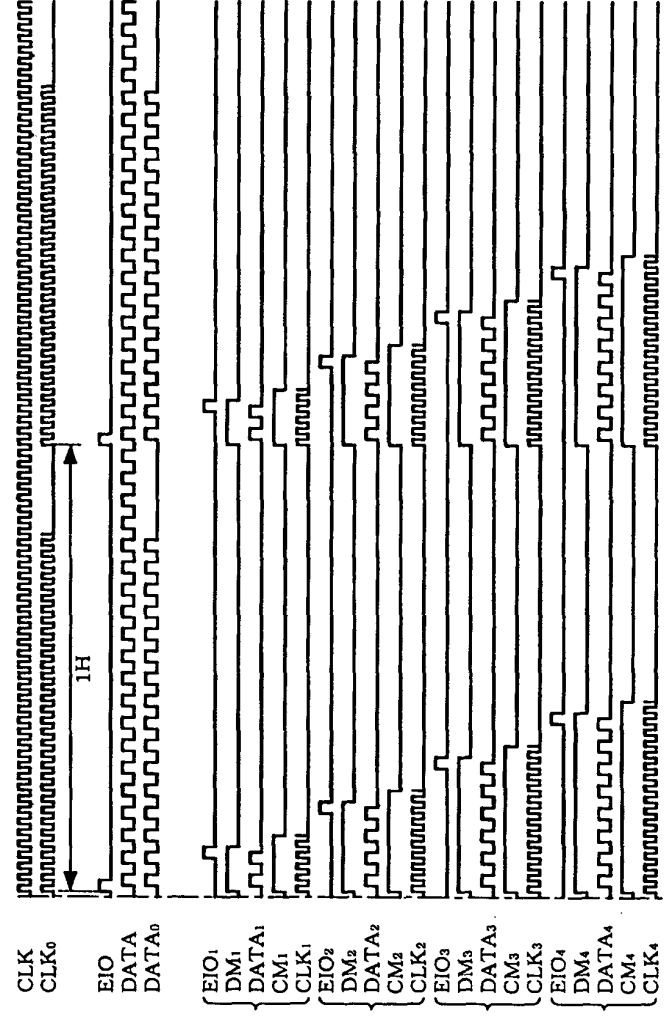


FIG. 24

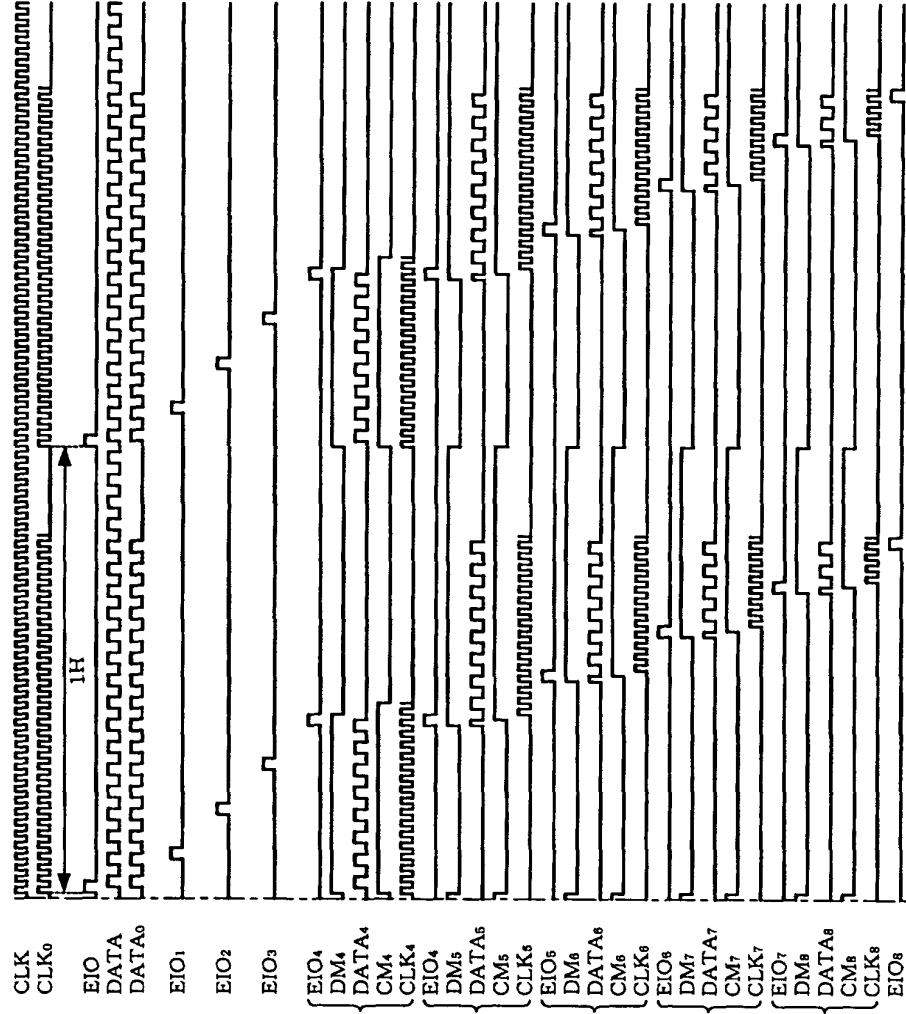


FIG. 25

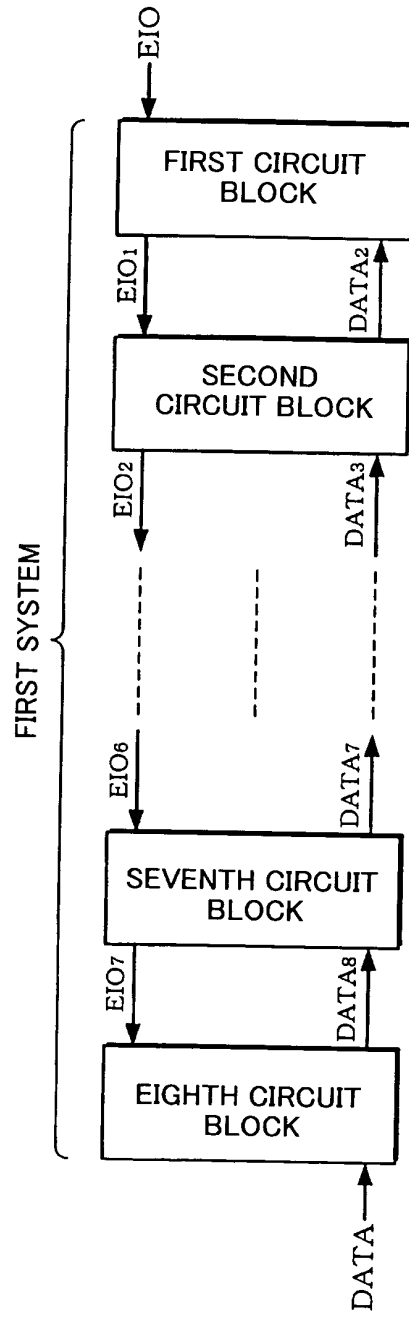


FIG. 26

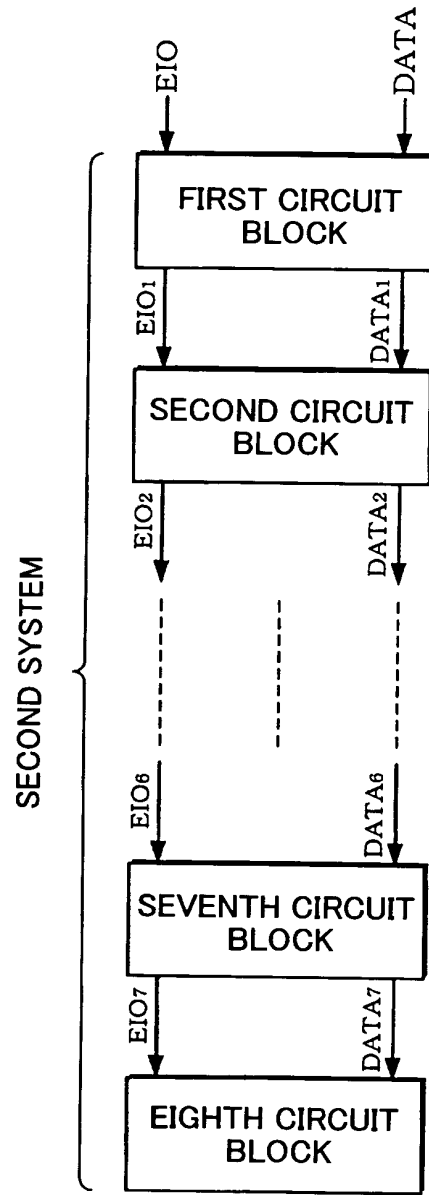


FIG. 27

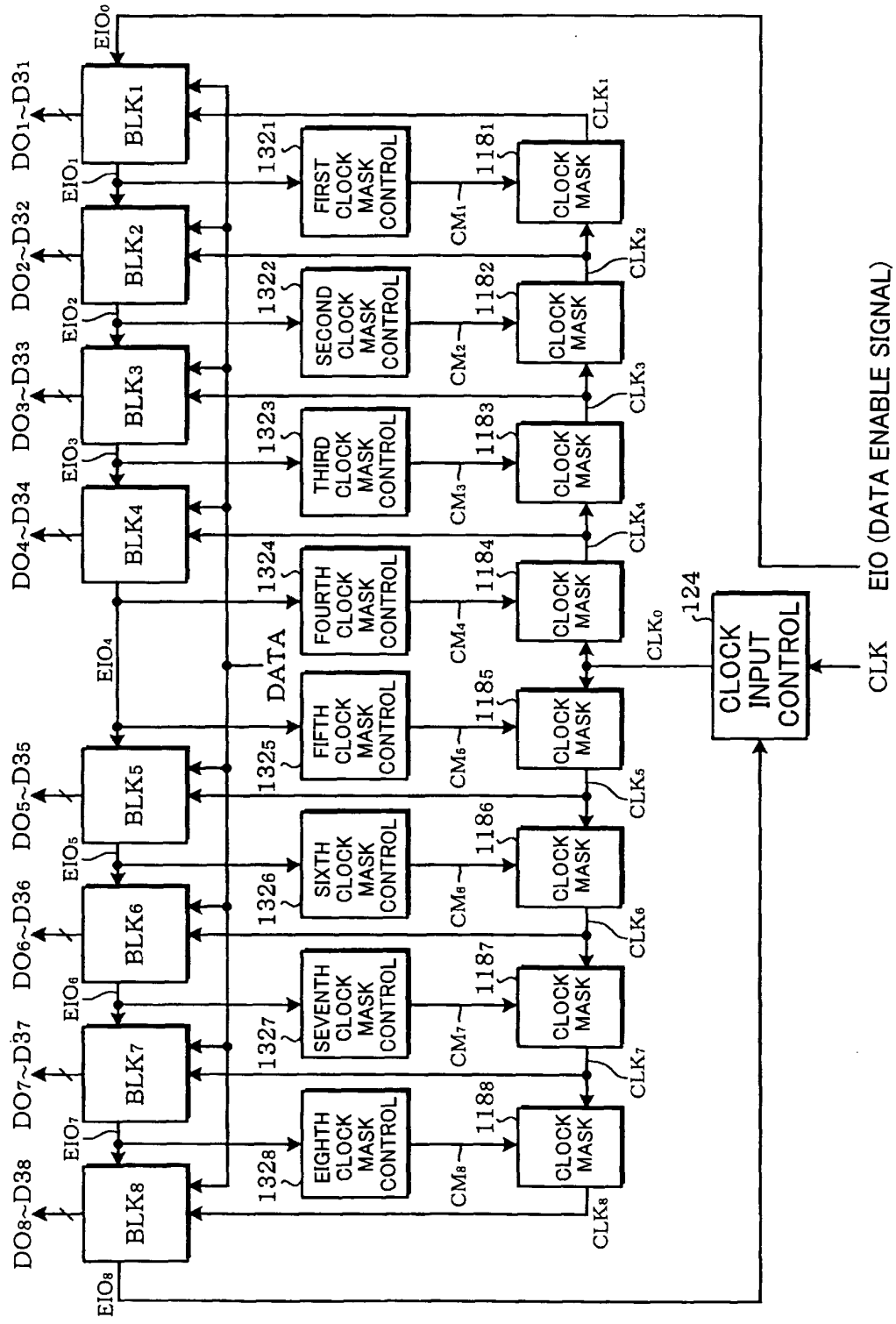


FIG. 28A

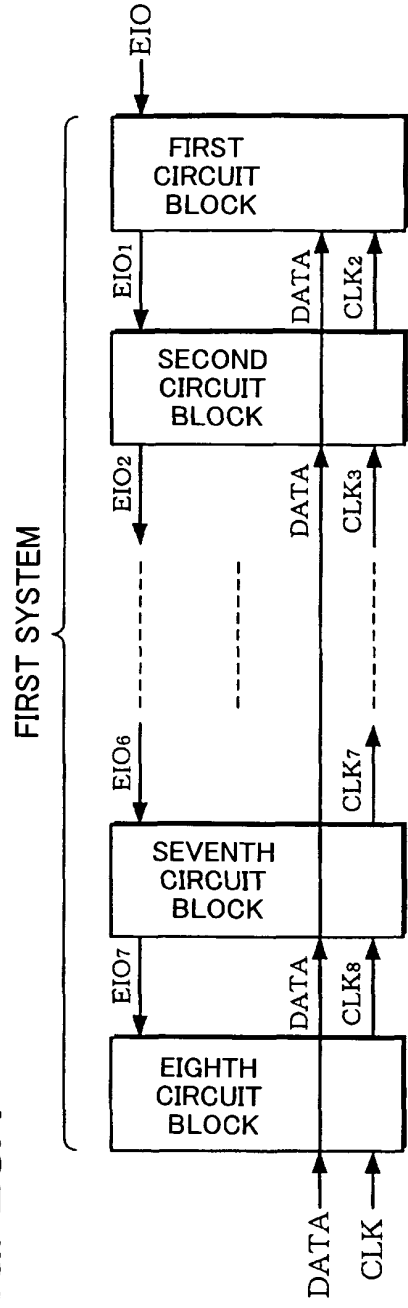


FIG. 28B

